

Wochnick, Heather M CIV NAVFAC HQ, BRAC PMO

From: Herndon, Roy <rherndon@ocwd.com>
Sent: Monday, November 19, 2018 10:48
To: Smits, Marc P CIV NAVFAC HQ, BRAC PMO; Chammas, Guy A CIV
Cc: Field, David; Carl Spangenberg (SPANGEN@irwd.com)
Subject: [Non-DoD Source] Well MCAS-8 Replacement
Attachments: MCAS-8R_Proposed.pdf; MCAS-8_As-built.pdf

Marc and Guy,

I wanted to let you know that OCWD staff have contacted the Irvine school district regarding the need to reconstruct monitoring well MCAS-8 and are waiting for a response. The location of former well MCAS-8 (destroyed and sealed) is no longer viable for the replacement well due to area constraints, so we are exploring other location options. Areas 1 and 2 on the attached map look the most feasible from our standpoint, but we'll see what the school district says.

Besides location, we are also considering which screened interval depth to target from a preliminary design standpoint. The lithologic log and construction diagram for well MCAS-8 are attached and indicate that the former well was perforated in a sand from 390 to 410 feet bgs. Subject to OCWD Board approval, the following is a general description of our preliminary scope of work:

1. Drill nominal 10-inch diameter pilot borehole using direct mud rotary to a maximum depth of 450 feet bgs
2. Collect and log borehole lithologic samples at a 5-foot depth intervals
3. Conduct SP, gamma, and electrical resistivity, and caliper logging of the pilot borehole
4. Select the screened (slotted) depth interval based on examination of the lithologic and electric geophysical logs, with the goal of selecting approx. 20 feet of the coarsest zone between 390 and 430 feet
5. Install 4-inch diameter Sched. 80 PVC flush-threaded PVC blank and slotted casing to the design depth
6. Install gravel pack around the slotted interval and then a bentonite/cement grout seal to ground surface
7. Develop well and collect initial water samples at end of development
8. Complete well head in locking below-grade vault
9. Install dedicated electric submersible pump
10. Survey well reference point horizontal location and vertical elevation

Considering that there are other permeable zones based on the lithologic log at MCAS-8, e.g., 140-160' and 330-370', and PFAS detections at nearby monitoring wells MCAS-6 and MCAS-7, it is important that the Navy has an opportunity to provide input on this scope of work. We are open to partnering with the Navy in some fashion if there is any interest or ability in sharing the costs of installing shallower zones at this location. We appreciate working with you and welcome any comments or questions.

Regards, Roy

<<http://www.ocwd.com/>> <<http://www.ocwd.com/>>

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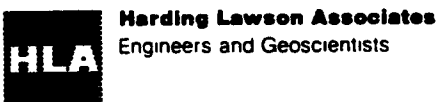
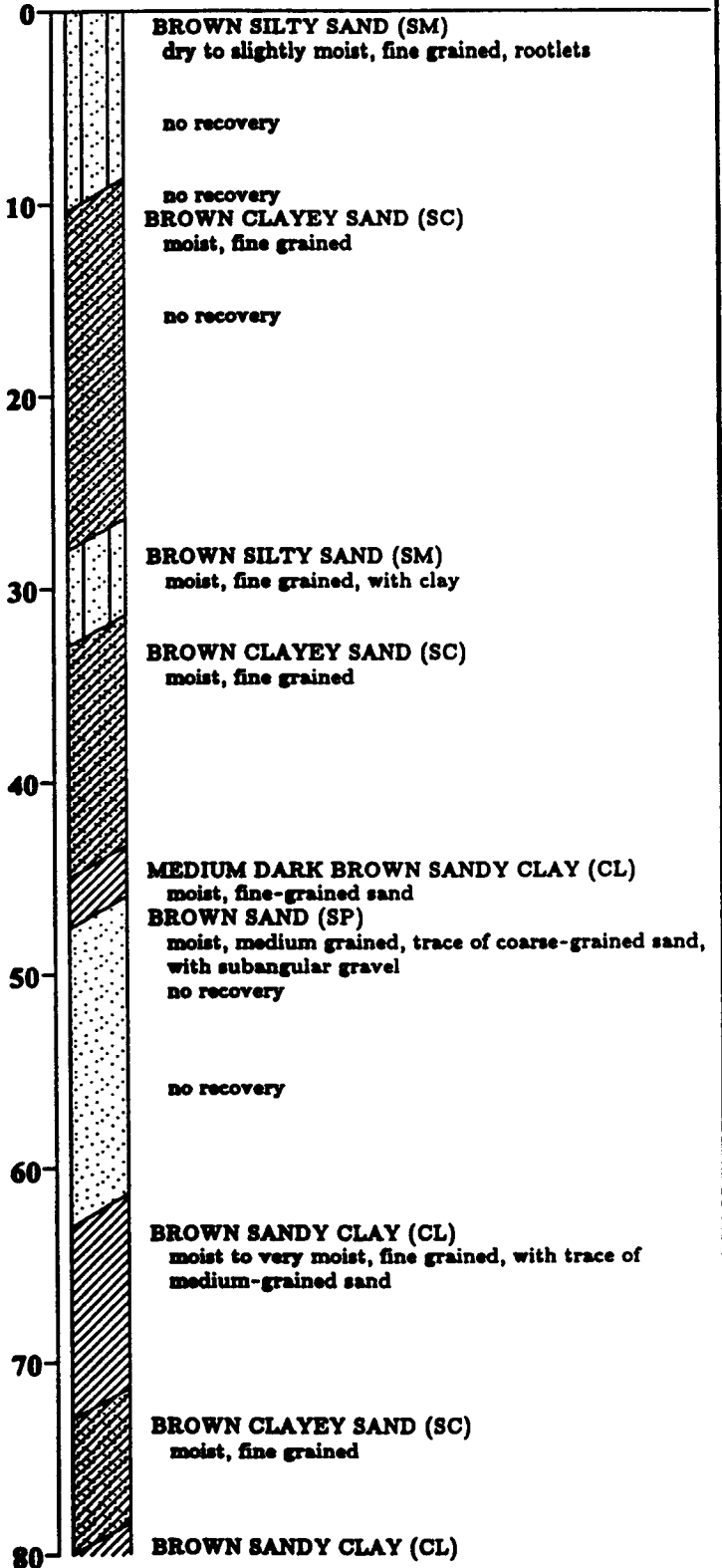
65/9W-3K1

Top of Casing NA(See Plate 10 for
Wellhead Construction)

Cement-Bentonite Seal

4" dia. Carbon Steel
Blank Casing

3-7/8" dia. Borehole

Depth ft
SampleEquipment Air RotaryElevation NA Date 9/14/89Harding Lawson Associates
Engineers and GeoscientistsLog of Boring MCAS- 8 (sheet 1 of 6)
Orange County Water District
Irvine, California

PLATE

6

DRAWN
HKJOB NUMBER
9859,054.11

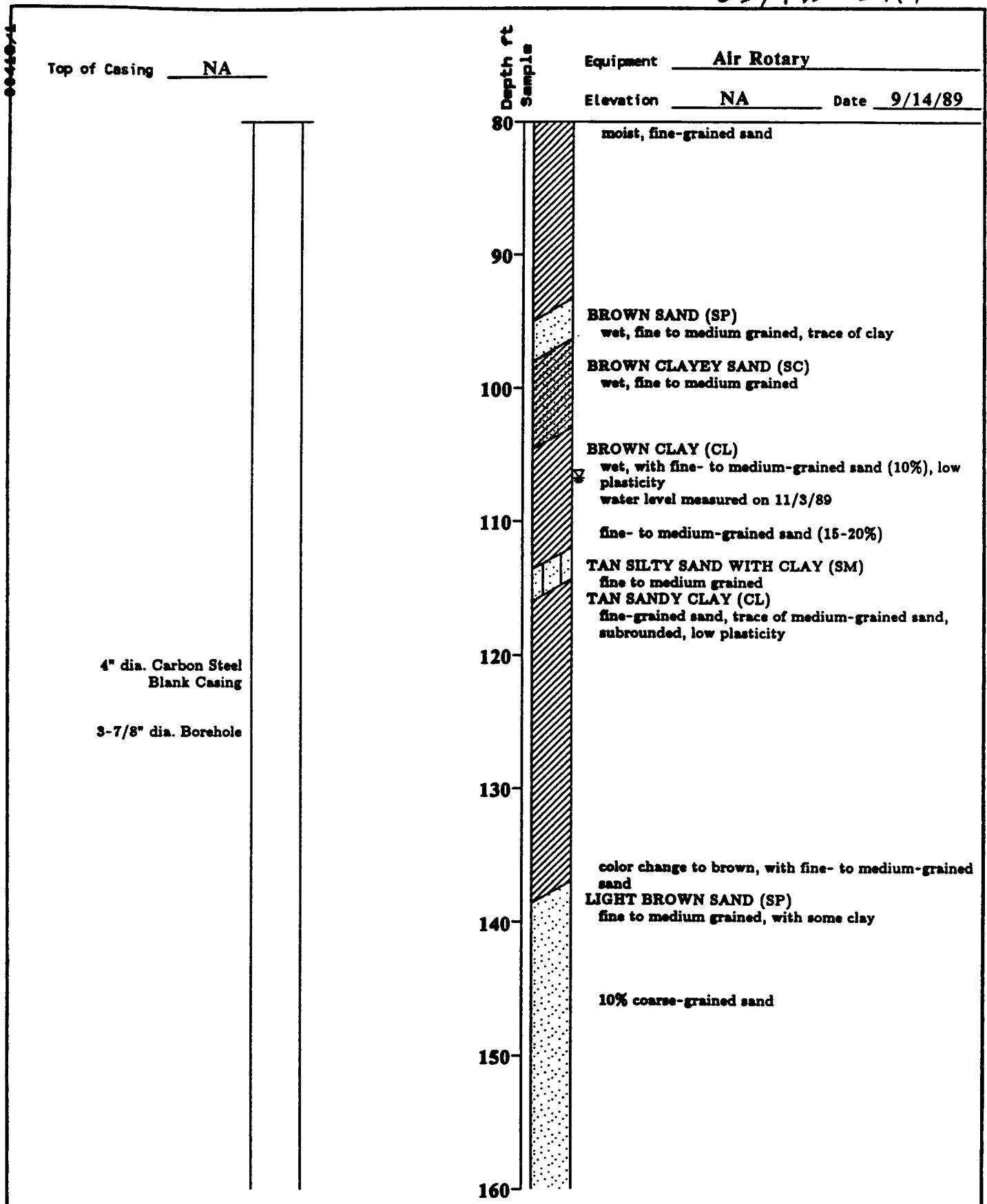
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DATE
11/89

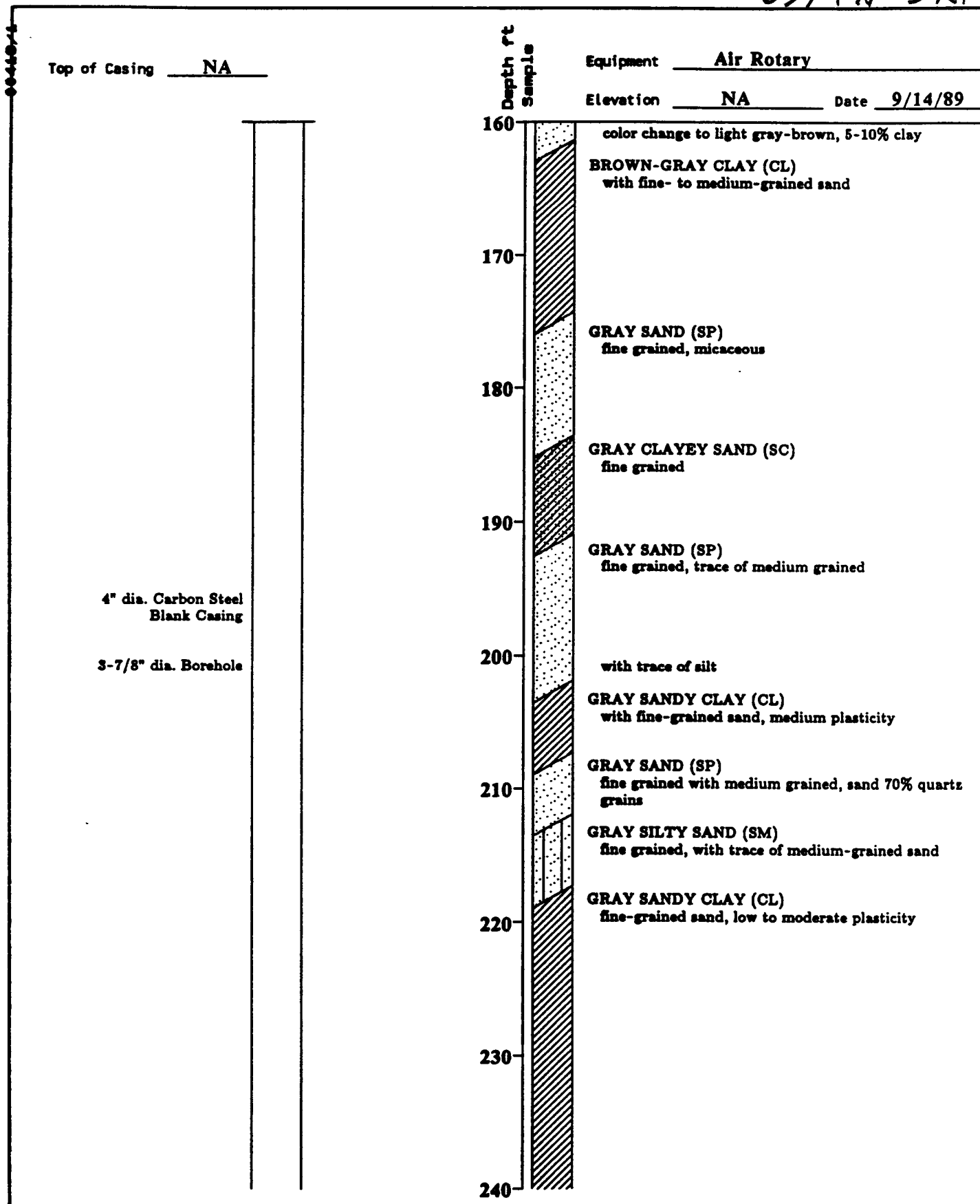
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DATE

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65/9W-3K1



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Log of Boring MCAS- 8 (sheet 3 of 6)
Orange County Water District
Irvine, California

PLATE

6b

DRAWN
HK

JOB NUMBER
9859,054.11

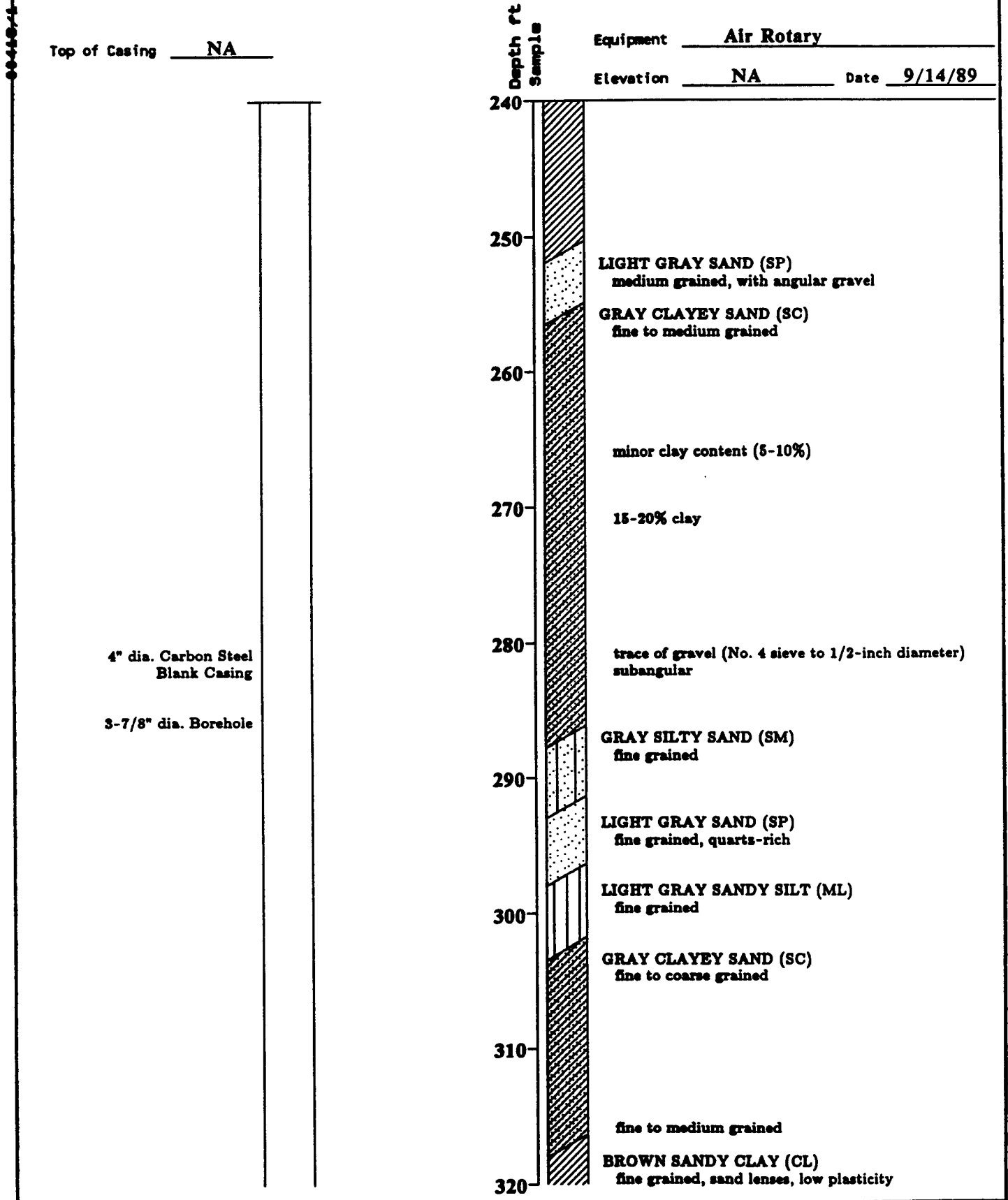
APPROVED

DATE
11/89

REVISED

DATE

65/9W-3K1



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Log of Boring MCAS- 8 (sheet 4 of 6)
Orange County Water District
Irvine, California

PLATE

6c

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HK

JOB NUMBER
9859,054.11

APPROVED

DATE
11/89

REVISED

DATE

65/9W-3K1

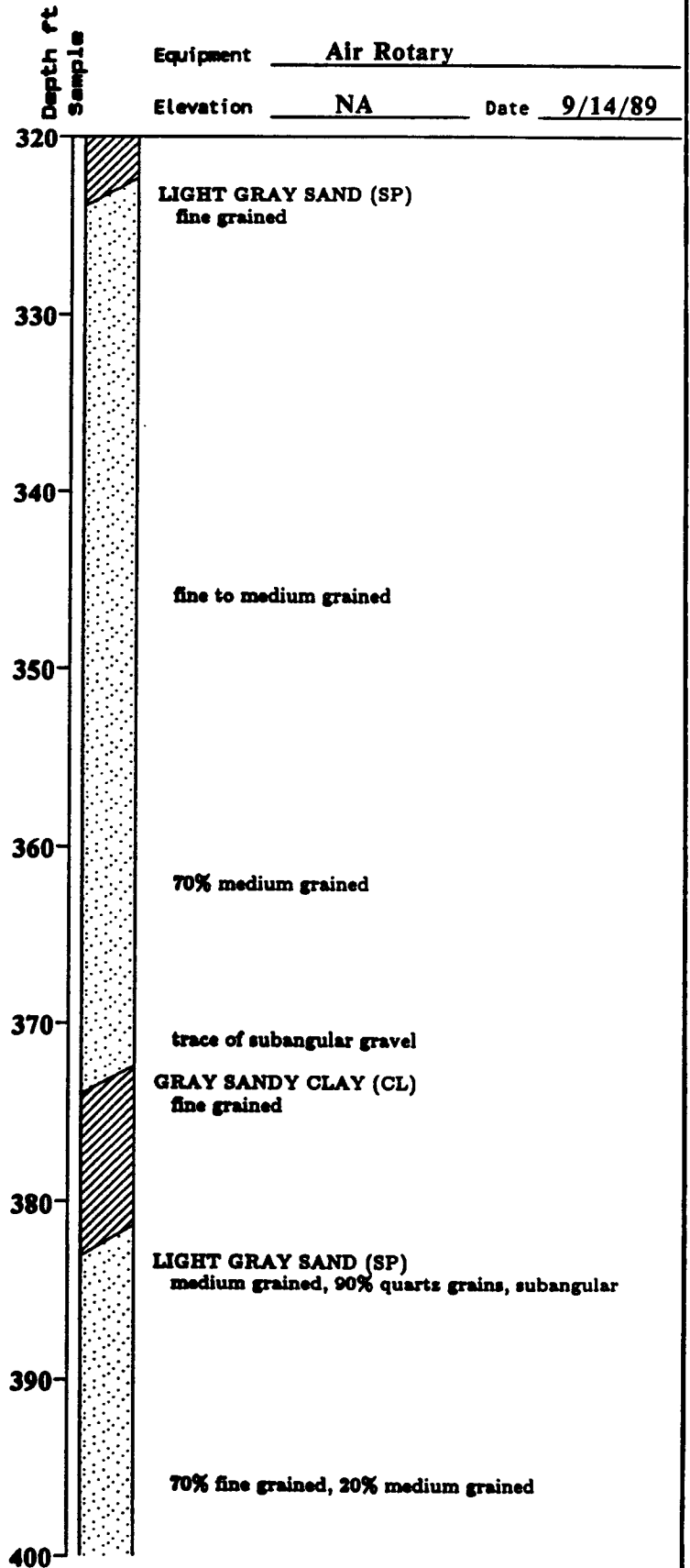
Top of Casing NA

Equipment Air Rotary

Elevation NA Date 9/14/89

4" dia. Carbon Steel
Blank Casing

3-7/8" dia. Borehole



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Log of Boring MCAS- 8 (sheet 5 of 6)
Orange County Water District
Irvine, California

PLATE

6d

DRAWN
HK

JOB NUMBER
9859,054.11

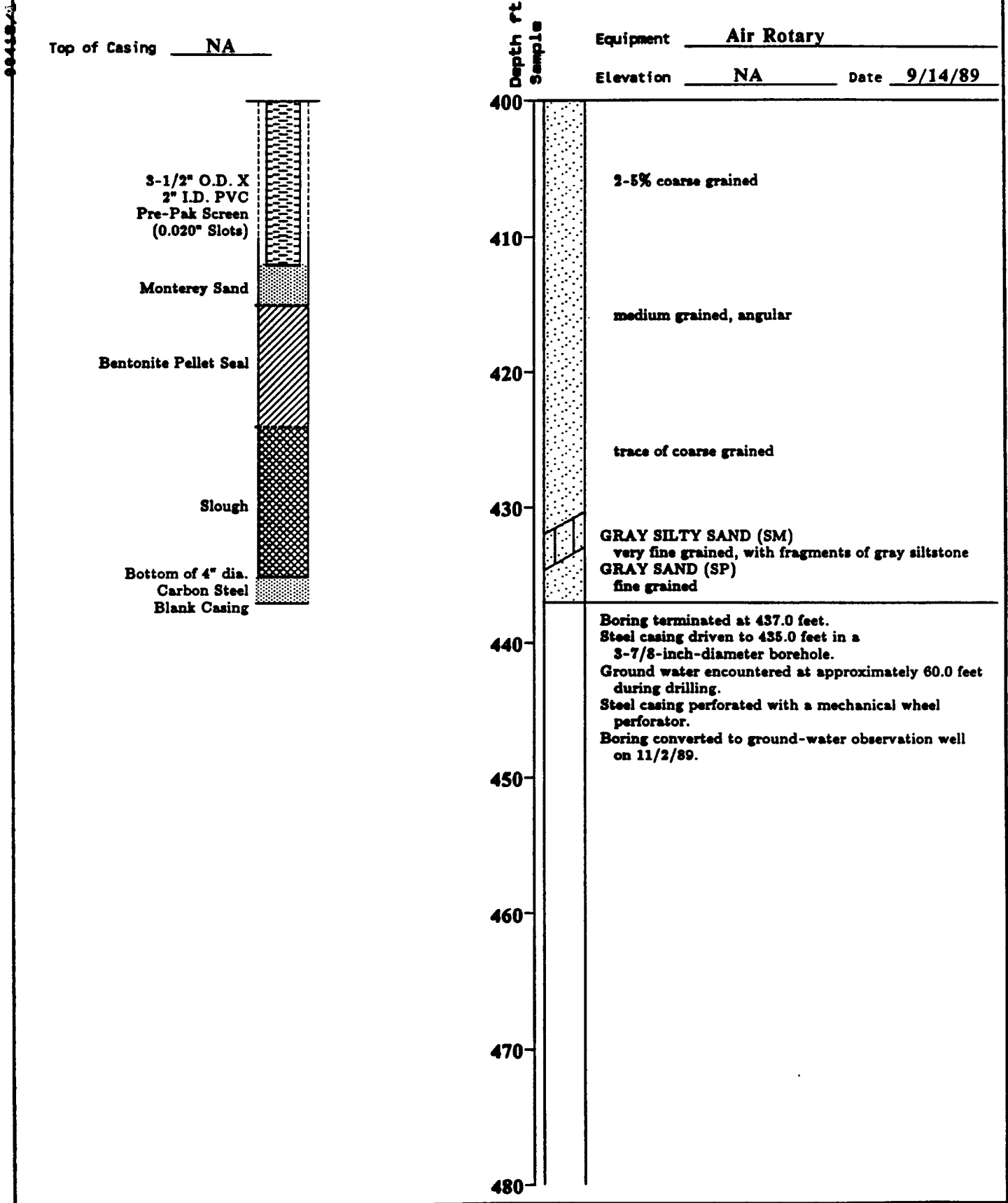
APPROVED

DATE
11/89

REVISED

DATE

65/9W-3K1



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Log of Boring MCAS- 8 (sheet 6 of 6)
Orange County Water District
Irvine, California

PLATE

6e

DRAWN
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JOB NUMBER
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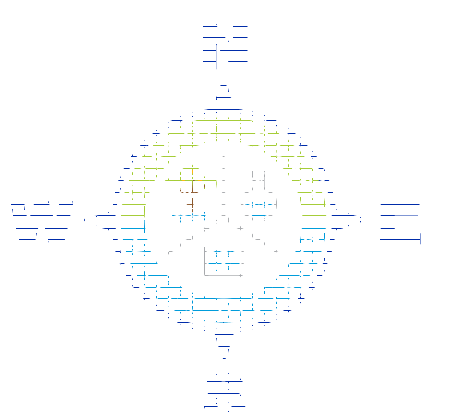
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DATE
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REVISED

DATE

MCAS-8 REPLACEMENT
POTENTIAL WELL SITES
NOVEMBER 2018



0 100 200
Feet